Mintech Repair

INTRODUCTION

With rising costs and compatibility issues among vendors, the need for dependable and reliable services are essential to meeting the needs for the company and their clients. In addition, the constant change of equipment, upgrades, and production up-times can ultimately exceed the warranty and end-of-life agreements with the original equipment manufacturers (OEM) and leave the company and/or client without support on a product crucial to ensure success.

At Mintech Repair, when it comes to corporate assets we understand the need is urgent – and with precision and accuracy. As a certified ISO9001:2000 business, we have put quality guidelines and standards in place to reduce that risk, while continuously looking for new and innovative methods to increase our overall customer satisfaction. We seek to provide the best premier telecommunications services (test and repair) solutions in-house for most corporate and client needs. With our well-trained equipment repair specialists and experienced test technicians addressing the problems, these problems become our team's priority. Each customer can expect the quickest and thorough test and repair services that will meet their needs for maximum cost-efficiency.

We understand the importance of keeping your network running, and know that you can't always wait for your telecom network equipment to be repaired. For this reason, you may have replaced some parts, with outdated or degraded equipment. We excel at taking those items and repairing them to a status that would give you confidence moving forward. This is our core competency, and we are very good at it!

SERVICE OBJECTIVES

The goal is very simple: We will seek to ensure that we maintain a 90 percent efficiency rating within every department and task being performed on all products within our facility!

We hold all of our employees to a high standard of excellence and this is passed on to our clients by the quality, consistent, and reliable standards that are applied to each product from when it arrives to when it is returned. The difficulty is to ensure that the client understands that this is not a hindrance or advantage, but a commitment that is assigned because we value their business.

At Mintech Repair, we make it our mission to being the best testing and repair services vendor in the nation. We have built a facility that allows maximum flexibility for repair and testing, and allows the client more control over the product that is sent to us. This service could not be possible without creating a core team of individuals who have the expertise and are committed to these goals. I am pleased to say we have such a team and with these assets in place, we are poised to achieve and surpass these objectives and solidify a position as a premier test and repair facility for multiple clients and vendors.

SOLUTIONS

The current trend for networks has been the increasing use of current products to maximize the value and profitability within a network. However, this comes at a cost, because as technology changes and warranties expire the company is forced to consider expensive warranty extensions or third-party vendors for replacements.

We do not seek to impact the relationship that exists between the client and OEM. On the contrary, we seek to augment that relationship by providing a service that can be beneficial to both parties, by focusing on the products that are out-of-warranty (OOW) and end-of-life (EOL).

We realize that in telecom the need for sales is paramount to the success of the OEM, but not necessarily for the customers. The delicate balance of maintaining that relationship, while seeking alternative solutions is one we feel we are in position to address. Without charging and exorbitant fee, we can address some of the issues with these assets and make them useful asset for production or re-sale, depending on the customers' needs. The repair solution can sometimes benefit some clients who feel that the overall replacement of a card is not a cost effective option for their business.

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TESTING SERVICES

There are various methods of testing, and although our core competency is repair, we understand the essential need for testing the product when it is completed. For this reason, we have constructed a lab that will be able to perform testing on most of the products used in the field today.

The differences between our testing and our competitors, is the model we employ for card testing. We have configured our systems to test the card for end to end testing compatibility across multiple vendor types and scenarios that closely mimic production networks. This differs from the card to test set scenario employed by other vendors.

All of our products shall be tested aggressively, using approved and industry tested methods while ensuring the integrity of the card components is maintained. Simply put, we make sure the card will work once you place it into your network. Some of the services we offer are:

- Standard Card / System Testing
- Firmware Upgrades
- Version Compatibility Testing
- Scenario Based Testing
- BIT Error Validation Testing
- Packet Based Transmission Testing
- Switch / Fail Over Testing

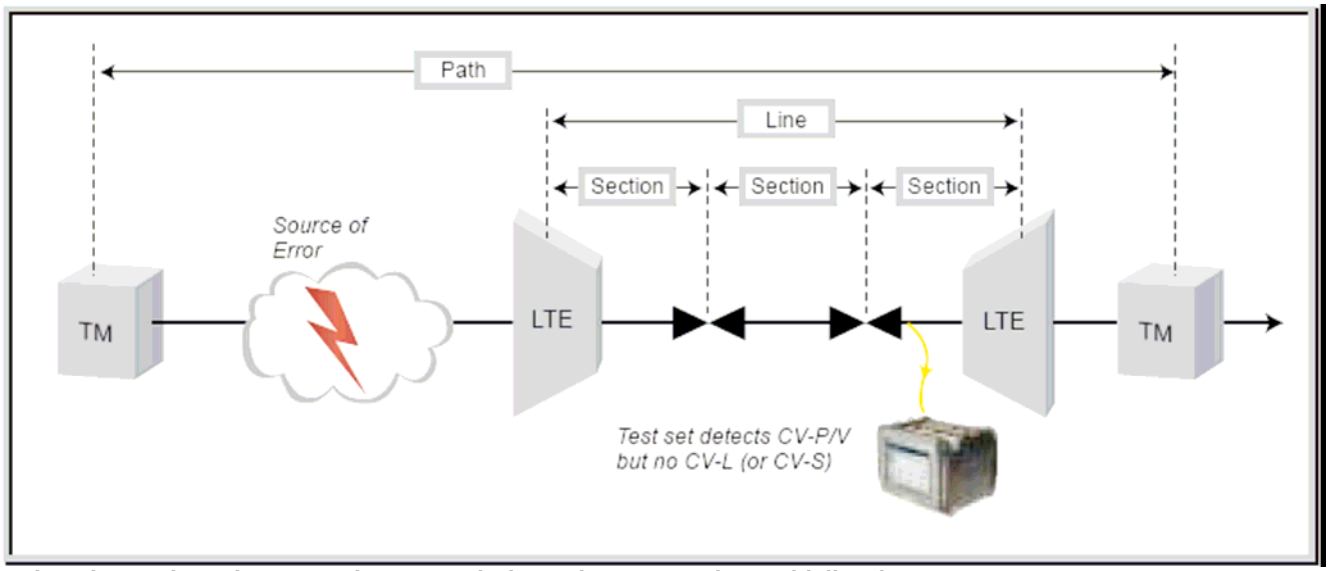
TESTING STANDARDS

While we have the flexibility to test your cards in certain scenarios, we will seek to remain compliant with the established standards as set by the industry guidelines for SONET and other established protocols. This will ensure that each party maintains a level of consistency that will help to maintain credibility for our testing procedures.

By maintaining and confining ourselves to these guidelines, we can avoid compromising our testing methods. With this in mind, this strict guidance allows us to communicate the expectations to the client more efficiently on the products that enter and exit the lab and to our engineers who perform these tests.

The levels of testing are confined to the equipment type and system availability. The testing may be modified to meet certain testing criteria (i.e. time, framing, etc.); however, each compatible product shall be tested using the following established standards:

- American National Standards Institute (ANSI)
- International Telecommunications Union (ITU)
- SONET Interoperability Forum (SIF)
- Telcordia (formerly BellCore)



Mintech Repair Optimum Testing Scenario (Based on B3 Testing Guidelines)

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REPAIR SERVICES

While we may try, the fact remains that the sensitivity and fragile nature of a circuit board makes it essential to have a company that can diagnose and repair the components that may prevent a card from working properly.

Understanding that many elements could reduce a card that costs thousands of dollars to zero in an instant; we look at the value for our customers and seek ways to minimize that impact. In addition, the cost replacement could add to the replacement charge, especially if that product is OOW or EOL. For this reason, we continue to excel at restoring those cards as close to their original condition as possible.

Our technicians have the expertise to track down these issues using the latest methods of testing, including VLSI, PQFP, SMT, Through-hole, and BGA. Most components are flashed and tested through windows programmable components. We analyze devices using logic analyzer(s) to track down the problems within the circuit path. With our ability to reverse engineer the circuit boards, we ensure that all points of probable failure are tested before approving the board for return to the customer.

Although we are confident in the abilities of our technicians, we are committed to maintaining the standards as set by the following:

- **J-STD-001** Requirements for Soldered Electrical and Electronic Assemblies
- **IPC-A-600** Acceptability of Printed Boards
- **IPC-A-610** Acceptability of Electronic Assemblies
- **IPC 7711** Rework of Electronic Assemblies
- **IPC 7721** Modification, Rework and Repair of Printed Boards and Electronic Assemblies

This allows our technicians to:

1. Perform Quick and Concise Evaluations
2. Provide Accurate Quotes
3. Expert Analysis and Repair
4. Expedited Parts Ordering
5. Rapid Testing and Return

CUSTOMER PROFITABILITY

There are many keys to profit in telecommunications, but the main attribute is the equipment and services that are offered in a timely manner to the customers. Still, this is offset by the expenditures to maintain and grow the network in cost conscious manner, while maximizing the current assets in production.

If an asset breaks, or has degraded to the point that creates a need for a replacement or repair, the cost between those two could be substantial. Some companies may attempt to qualify the diagnosis in an attempt to sell a replacement product. This is where Mintech stands out from other competitors. We want to give you the best services for what you asked for. That focus allows this company to get your product into and out of our repair cycle, so that your network continues to grow financially with greater fiscal responsibility.

TEST AND REPAIR CYCLE MANAGEMENT

In order to maintain the best response time for our clients, we depend heavily on the Mintech Repair Cycle Management Process™.

The Mintech Repair management process provides a method to ensure that all members of the Mintech Repair team are aware of any asset that comes into the company. This process allows each department to determine the level of involvement necessary to ensure the asset is managed and returned with the best possible response time.

All too often, companies rely on systems to maintain and manage their inventory, and as a result a card or system may exceed the promised turn-around time promised to the client. This time, although negligible to the vendor, is critical to the customer, because of the time lost between asset return.

For this reason, we have taken great pride in our ability to effectively communicate between departments and track the card between departments to ensure accurate and timely updates for all products relating to a customers' inquiry.

With these accurate and timely updates, the customer can better track their assets and can forecast when their product will be returned and can plan accordingly to return it to service or update their inventory for future use.